REMARKS

In response to the final Office Action of February 25, Applicants have amended the claims, which when considered with the following remarks, is deemed to place the present application in condition for allowance. Favorable consideration of all pending claims is respectfully requested.

In the first instance, Applicants through the undersigned, thank Examiners Collins for her time and consideration in granting three telephone interviews on April 13, 2004, May 4, 2004, and May 5, 2004. Applicants acknowledge receipt of the Interview Summary for the first telephone interview. The substance of the first interview consisted of the undersigned directing the Examiner to Table 2 which appears after the abstract in the above-identified application as filed. The substance of the first interview also consisted of the undersigned directing the Examiner to page 53 of the specification as filed for further support for the claim amendments filed in response to the previous office action. In the previous amendment, Applicants directed the Examiner to page 56 of the specification, which page corresponded to the WO publication corresponding to the above-identified application, not the copy of the application as filed. Specifically, page 53 of the of the above-identified application, lines 5-13 provide:

> In accordance with the present invention previously unrecognized amino acid sequence motifs have been identified in plant cyclin-dependent kinase inhibitors (CKIs or ICKs) which allow classification of said ICKs in at least three structural groups. The different identified motifs are summarized in Table 2 and graphically represented in Figure 1. Motifs "1" (consensus sequence) {FX_2KYNFD}, SEQ ID NO:34), "2" (consensus sequence {[P/L]LXGRYEW}, SEQ ID NO:35) and "3" (consensus sequence {EXE[D/E]FFX_3E}, SEQ ID NO:36 are comprised in the carboxy-terminal part of plant ICK proteins and are conserved in all plant ICKs known in the art to date.

Also discussed during the course of the first telephone interview was Applicants' proposal to amend the pending claims to recite in relevant part: "SEQ ID NO:34, SEQ ID NO:35 and SEQ ID NO:36."

In the final Office Action dated February 25, 2004, Claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, 36, 54 and 55, as well as claims dependent thereon, have been rejected under 35 U.S.C.§112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner's position is that the recitation in claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, 36, 54, and 55 of "or any of the aforementioned amino acid sequences having one mismatch at any position" does not find support in the specification and therefore constitutes new matter. The Examiner has acknowledged Applicants' assertions that page 56 and Table 2 of the application provide support for the recitation "or any of the aforementioned amino acid sequences having one mismatch at any position." However, the Examiner maintains that page 56 of the application does not describe the motifs, and the application further does not contain a Table 2. *See* Office Action, page 3, lines 2-3.

As discussed above, Applicants' reference to page 56 of the application was in error; page 53 of the application describes the motifs. *See* above quoted passage. As also discussed during the first interview, the application *does* contain a Table 2, appearing after the abstract.

During the second telephone interview, the undersigned asserted that one skilled in the art, having the application in hand, would reasonably understand that the different cyclin-dependent kinase inhibitors (ICKs or CKIs) listed in Table 2 having Motifs 1, 2, and 3 do not have a perfect match to the consensus sequences (SEQ ID Nos: 34, 35, and 36 respectively). The undersigned directed the Examiner to pages 13-15 of the previously filed amendment, dated November 17, 2004, where an extensive discussion was provided concerning the fact that the

CKIs listed in Table 2 would not fall within the scope of the consensus sequences provided therein (i.e., SEQ ID Nos 34, 35, and 36 unless one mismatch (or substitution) is taken into account. The undersigned asserted that one skilled in the art would easily discern that the plant ICKs listed in Table 2 would not have sequences with a perfect match to the consensus sequences. The language "or any of the aforementioned amino acid sequences having one mismatch at any position" although not verbatim in the specification, is nonetheless inherently described in the specification.

The Examiner indicated in a third telephone interview that the proposed language "or any of the aforementioned amino acid sequences having one mismatch at any position" might not be acceptable since Table 2 does not reflect the same. An Interview Summary mailed to Applicants' representatives on May 10, 2004, indicates the Examiner's position that support for the claim language "or any of the aforementioned amino acid sequences having one mismatch at any position" allegedly does not exist in the specification "as not every amino acid position is mismatched (substituted?), and the mismatches (substitutions?) illustrated are not representative of all possible mismatches. The examiner's position is that Table 2 supports only those mismatches illustrated therein;" Interview Summary, May 10, 2004, page 3.

As presently amended, claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, and 36 (and claims dependent thereon), no longer recite "or any of the aforementioned amino acid sequences having one mismatch at any position." These claims presently recite in relevant part: "wherein the CKI comprises an amino acid sequence as set forth in SEQ ID NO:34 or an amino acid sequence that is at least 70% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:35 or an amino acid sequence that is at least 70% identical thereto, and an amino acid sequence as set forth in SEQ ID NO:36 or an amino acid sequence that is at least 70% identical

thereto." Literal support for the above-quoted recitation may be found throughout the specification, e.g., page 54, last three lines, to page 55, line 7. Inasmuch as the claims presently recite a phrase which is literally supported in the specification as filed, the new matter rejection of claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, 36, 54, and 55, as well as claims dependent thereon under 35 U.S.C. §112, first paragraph, should be withdrawn.

Claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, 36, 54, and 55, as well as claims dependent thereon, have been rejected under 35 U.S.C. 112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner's position is that claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, and 36 recite an amino acid sequence of at least one of SEQ ID Nos:34, 35, or 36. Claims 54 and 55 recite an amino acid sequence as set forth in any one of SEQ ID NOs: 37, 38, or 39. According to the Examiner, the specification at page 53 describes all plant cyclin-dependent kinase inhibitors known in the art to date as comprising in their carboxy-terminus three conserved amino acid motifs of SEQ ID Nos: 34, 35, and 36. Also according to the Examiner, the specification at page 53 describes all plant cyclin-dependent kinase inhibitors known in the art to date as comprising in their amino terminus either three conserved amino acid motifs of SEQ ID Nos: 37, 38, and 39; or one conserved amino acid sequence of SEQ ID No: 37 or none of the conserved amino acid motifs of SEQ ID Nos: 37, 38, or 39. In response to the rejection, and in order to advance prosecution of this application, the claims have been amended to reflect the same. Withdrawal of the rejection of claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, 36, 54, and 55, as well as claims dependent thereon, under 35 U.S.C.§ 112, first paragraph, is therefore warranted.

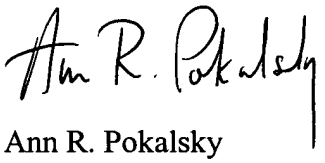
Claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, 36, 54, and 55, as well as claims dependent thereon, have been rejected under 35 U.S.C.§ 112, second paragraph as allegedly

indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. According to the Examiner, the claims are unclear in the recitation of "or any of the aforementioned amino acid sequences having one mismatch at any position." As the claims no longer recite this phrase, the rejection is moot. Withdrawal of the rejection of claims 2, 5, 7, 11, 14, 17, 21, 25, 27, 30, 36, 54, and 55, as well as claims dependent thereon, under 35 U.S.C.§ 112, second paragraph, is therefore respectfully requested.

Applicants have also amended Claim 45 to recite "[t]he transgenic plant of claim 36 having cells with decreased endoreduplication and ploidy levels relative to a corresponding wild type plant". Support for the recitation of "decreased endoreduplication and ploidy levels" appears throughout the specification, e.g., page 50, line 21 to page 51, line 6, and Example 18.

Finally, Applicants submit herewith, a declaration under 35 U.S.C.§1.132, executed by Dr. Wim J.F. Van Camp, attesting to a reasonable interpretation of the data and consensus sequences presented in Table 2 of the present application. The declaration also presents still further evidence that the presently claimed invention was fully enabled and in possession of the inventors as of the effective filing date of the present application.

Respectfully submitted,



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